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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,624	12/11/2003	Marty J. Carty	4016M	8516

7590 02/06/2006
S. Michael Bender
P.O. Box 530399
St. Petersburg, FL 33747

EXAMINER

MCCREARY, LEONARD

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,624

Applicant(s)

CARTY, MARTY J.

Examiner

Leonard J. McCreary, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 dec 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11 Dec 2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "...plural internal non-peripheral regions between said flexible top wall and said flexible bottom wall that are not in contact with said compartment boundaries..." as recited in claim 1, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: As recited in claim 1, the phrase "...plural internal non-peripheral regions between said flexible top wall and said flexible bottom wall that are not in contact with said compartment boundaries..." is not adequately described in the specification, since these regions are not assigned part numbers or explicitly shown on the drawings, and because, based on the drawings, all regions of the ballast appear to be in contact with compartment boundaries.

Claim Rejections - 35 USC § 112

The following is a quote from 35 U.S.C. 112, 6th Paragraph:

" An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

In claim 1, the language suggests the applicant may be attempting to invoke 35 U.S.C 112, 6th paragraph. The "flexible wall means" is followed by a function and then further followed by structural limitations that would already be covered in the specification under 35 U.S.C 112, 6th paragraph. The "compartment boundary means" is not followed by a function, as required by 35 U.S.C 112, 6th paragraph, but is followed

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by structural limitations that would already be covered in the specification under 35 U.S.C 112, 6th paragraph. It is the Examiner's position that applicant has not invoked 35 U.S.C 112, 6th paragraph.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 2 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is replete with errors and unclear language making it difficult to distinguish exactly the scope of what the applicant is attempting to claim. The phrase "...plural internal non-peripheral regions between said flexible top wall and said flexible bottom wall that are not in contact with said compartment boundaries..." does not seem to be a physically claimable element of the invention. It appears the applicant is attempting to recite, "boundaries form compartments."

Regarding claim 1, the word "means" is preceded by the word(s) "compartment boundary" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

As best understood by the examiner, and at least to the extent described by the applicant, claim 1 stands rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 5,897,138 to Hall. Hall discloses a vehicle ballast receptacle comprising:

- flexible wall means 10 for containing a quantity of ballast liquid, wherein the flexible wall means includes a flexible top wall 12, a flexible bottom wall 14, and a peripheral sealed region 13; compartment boundaries 17 at plural internal non-peripheral locations wherein the compartment boundaries are in contact with the flexible top and bottom walls; the compartment boundaries define internal ballast compartments; the ballast compartments are in fluid communication with each other (Fig. 2); an interior access valve 15 in the flexible wall for filling the ballast compartments with a ballast fluid and for emptying the ballast liquid from the ballast compartments (claim 1.)

Claims 9 and 10 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 2002/0145277 to Dombey. Dombey discloses a vehicle traction enhancer having a combined cargo support (paragraph 0011) and ballast apparatus (paragraph 0001) for a

vehicle having a truck bed including a floor and opposed side walls defining a pair of opposed wheel wells, the apparatus comprising:

- a flexible, hollow, substantially rectangular-shaped bladder 14; a valve assembly 16 for admitting a ballast liquid into the hollow interior of the bladder, wherein the bladder is suitably dimensioned to lie flat on the truck bed 12 between the pair of wheel wells 18 (claim 9.)
- the hollow interior of the bladder includes baffles 22 for compartmentalizing the liquid ballast therein (claim 10.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,897,138 to Hall in view of U.S. 5,542,765 to Smith et al. The disclosure of Hall is discussed above. Hall does not teach that the vehicle ballast receptacle can be constructed with flexible top and bottom walls consisting of a single-layer outer liner and a single-layer inner liner, nor that it can be constructed with flexible top and bottom walls consisting of a double-layer, mesh-reinforced outer liner and a single-layer inner liner, nor that the double-layer mesh-reinforced outer liner includes an inside flexible nylon

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mesh layer sandwiched between and a top layer of flexible vinyl liner material and a bottom layer of flexible liner material. Smith teaches a collapsible container for carrying flowable materials comprising:

- walls including a single-layer outer liner and a single-layer inner liner (column 5, lines 17-22) (claim 3.)
- walls including a double-layer, mesh-reinforced outer liner and a single-layer inner liner (column 5, lines 9-13) (claim 4.)
- the double-layer mesh-reinforced outer liner includes an inside flexible nylon mesh layer sandwiched between a top layer of flexible rubber and a bottom layer of flexible rubber (column 4, line 54 – column 5, line 7), wherein the term “rubber” includes vinyl (column 5, lines 1-5) (claim 5.)

As interpreted by the examiner, the applicant's term “mesh” corresponds to Smith's term “fabric,” since fabric is a type of mesh. Further, “rubber-coated fabric” is the equivalent of sandwiching the fabric between two layers of rubber, since the structure is equivalent.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the vehicle ballast receptacle of Hall in view of the teachings of Smith to fabricate the ballast receptacle of varieties of layers and materials so as to increase the strength and durability of the ballast. Specifically, vinyl is an obvious choice due to its well-known favorable mechanical properties that make it resilient to damage and cracking upon expansion caused by freezing of water contained therein and since vinyl may preserve the fluid contents from becoming contaminated, which would be important if it is desired that the water is to remain potable. Nylon mesh

reinforcement is an obvious choice because of its wide-spread use in such flexible reinforcement applications and also because of its relatively inexpensive cost.

Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,897,138 to Hall. Hall discloses the invention recited in claim 6 except the vehicle ballast receptacle comprises a sealed inlet 15 positioned on top and a drain outlet 16 positioned in one of the side walls. It would have been obvious to one having ordinary skill in the art at the time of invention to omit the drain outlet, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,897,138 to Hall in view of U.S. 4,596,573 to Donnan et al. The disclosure of Hall is discussed above. Hall does not specify that the polyvinylchloride ballast sealed regions are formed using RF welding, though he does teach that handles 18 may be attached to the apparatus using heat welding (column 2, lines 35-36,) of which RF welding is a type. Donnan teaches a container for storing fluids that can be constructed of polyvinylchloride (PVC) (column 2, line 32) wherein the sealed regions can be formed by RF welding. It would have been obvious to one of ordinary skill in the art to form the sealed regions of the ballast using RF welding, since it is well known in the art of thermoplastics that sufficiently thin sheets of nonconductive thermoplastics, such as

PVC, can be sealably joined by RF welding wherein radio frequency energy is applied across the thermoplastic such that the resistance of the material causes electrical losses producing sufficient heat to fuse the materials.

Claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,897,138 to Hall in view of U.S. 2002/0145277 to Dombey. The disclosure of Hall is discussed above. Hall does not teach compartment boundaries having an X-shaped appearance as viewed from above. The disclosure of Dombey is discussed above, and further teaches compartment boundaries 22 having an X-shaped appearance at each interstice as viewed from above (Figs. 1-3.) It would have been obvious to one of ordinary skill in the art at the time of invention to modify the vehicle ballast receptacle of Hall in view of the teachings of Dombey to include X-shaped compartment boundaries so as to reduce inertial shifting of the ballast fluid in the directions of both the transverse and longitudinal vehicle axes thus further increasing vehicle stability.

Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 2002/0145277 to Dombey in view of U.S. 5,897,138 to Hall. The disclosures of Dombey and Hall are discussed above. Dombey does not teach that the vehicle traction enhancer can be made of a material that expands upon freezing of the ballast fluid contained therein. Hall teaches the vehicle ballast receptacle can be fabricated of a material such as polyvinylchloride which expands, rather than cracks, with the ballast fluid as the fluid freezes (column 2, lines 48-54.) It would have been obvious to one of

ordinary skill in the art at the time of invention to modify the vehicle traction enhancer of Dombey in view of the teachings of Hall to fabricate the apparatus of a material that expands with freezing water so as to impart cold weather resistance.

Claim 12 stands rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 2002/0145277 to Dombey in view of U.S. 5,897,138 to Hall, and in further view of U.S. 5,542,765 to Smith et al. The disclosures of Dombey and Hall are discussed above. Dombey does not teach a protective layer covering the ballast walls. Smith teaches a collapsible container for carrying flowable materials wherein the container walls may include a protective layer in the form of an abrasion panel 28 (column 5, lines 40-65.) It would have been obvious to one of ordinary skill in the art at the time of invention to modify the ballast of Dombey in view of the teachings of Smith to include a protective layer on at least the top layer of the ballast so as to reduce the likelihood of ballast failure due to punctures or abrasions caused by cargo placed on top of the ballast.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:


U.S. 5,779,092 to Hehn et al. discloses a baffle system for a tank comprising a plurality of baffles that suppress inertial shifts of the fluid while leaving individual compartments in fluid communication with each other.

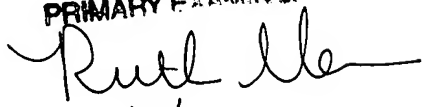
U.S. 5,657,916 to Tackett discloses a storage unit having ballast capability for use in pick-up trucks comprising a molded shell dimensioned to cover the bed of a pick-up truck and around wheel wells, and securing flanges.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. McCreary, Jr. whose telephone number is 571-272-8766. The examiner can normally be reached on 0700-1700 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Leonard J. McCreary, Jr.
Examiner
Art Unit 3616

**RUTHILAN
PRIMARY EXAMINER**

2/13/06